

## ATTACHMENT

### QUESTIONS TO GUIDE DISCUSSION AND COMMENT

JUNE 23, 2009

#### JOINT SITING AND IEPR COMMITTEE WORKSHOP ON GHG

Questions for discussion and comment on Consultant Report to the Energy Commission:  
*Framework for Evaluating Greenhouse Gas Implications of Natural Gas-Fired Power Plants in California* (GHG Framework Report).

1. Chapter 7 of the GHG Framework Report identifies five roles new gas-fired power plants may fill given the state's current environmental and energy goals. Three of these are related to local reliability or operating characteristics needed by the electric system in increasing amounts as greater levels of reliance upon renewable generation takes place.
  - a) Do the system operators agree that these are roles that gas-fired power plants will fill in the near and medium term?
  - b) Are there other roles that are not described in Chapter 7 that should be added?
  - c) Should standardized definitions of plant attributes be developed? What agency or source should be relied upon for determining standardized definitions? Chapter 7 provides definitions that are drawn for CAISO's tariff. Are these definitions sufficient?
  - d) What is the relative importance of the five roles?
2. Are there characteristics of plants using fuels other than natural gas (e.g. biomass) that should be considered in terms of their impact on GHG emissions?
3. Do the Policy-Driven Futures identified in Chapter 6 of the GHG Framework Report adequately describe the likely range of resource development trajectories over the next 12 years, and if so do they correctly capture the GHG emission implications of those futures?
4. Are the identified Policy-Driven Futures an appropriate range of possible future alternatives?
5. The GHG Framework Report suggests extensive modeling would be necessary to understand precisely how the net GHG emissions of the electric system would change under various specified future conditions. However, the report authors expect that net GHG emissions will decline under the following futures:
  - a) The addition of new gas-fired power plants to the extent necessary to permit the penetration of renewable generation to the 33 percent target.
  - b) The addition of new gas-fired power plants improving the overall efficiency of the electric system.

- c) The addition of a new gas-fired power plant or modernization/repowering of existing capacity serving load growth or capacity needs more efficiently than the existing fleet. Is this a reasonable conclusion?
- 6. Assuming that the roles identified in Chapter 7 of the GHG Framework Report are valid, how are utilities and others responsible for long-term resource additions going to assure that generating resources with such qualities are developed?
- 7. How has the CPUC directed IOUs to evaluate the GHG emissions of power plant contracts in its LTPP decisions, or through other means, in constructing RFOs or in evaluating bids submitted into RFOs?
- 8. To what extent are expected GHG emissions taken in account in procurement or project development processes?
  - a) From the project developer perspective?
  - b) From the IOU perspective, following CPUC procurement guidance?
  - c) From the POU perspective, satisfying its own GHG emission policies or applicable mandates from the State of California?
  - d) From the electric service provider perspective?
- 9. The GHG Framework Report suggests that the role of a power plant applying for a license at the Energy Commission be considered in assessing its likely GHG emissions, but how the expected role(s) that might be played by a given power plant with a specified technology would be determined is unclear:
  - a) What evidence should be presented in an individual power plant licensing case to confirm that a proposed power plant intends, or can be expected, to fulfill one or more roles?
  - b) To what extent would long-term contract(s) with load serving entities help to establish that a power plant is intended to play one or more roles?
  - c) Assuming typical long-term contracts between merchant power plants and investor-owned utilities extend 10 years, how would one or more roles be identified for the proposed power plant after an initial contract was completed?
- 10. From a GHG emissions perspective, the GHG Framework Report appears to reinforce the Energy Commission Siting Committee report (CEC-700-2009-004, March 2009) that power plants should be examined as elements of the overall electricity system and not as stand-alone facilities that can be examined separately.
  - a) Does the CAISO interconnection process for major projects also analyze a specific facility in the context of its impact on the system?

- b) Do the procurement rules established by the CPUC for IOUs in determining “net short” positions forward in time examine specific project output in the context of a portfolio of project satisfying total requirements?
- c) How do specific contracts submitted for approval by the CPUC satisfy overall IOU resource needs to serve end-user energy demand reliably?